WHAT IS CLAIMED IS:

1. A method for isolating DNA from a biological sample comprising the following sequential steps:

(a) separating the biological material comprising DNA from the remainder of the biological sample;

(b) contacting the separated biological material comprising DNA of step (a) with a hypertonic, high salt reagent so as to form a suspension of said biological material containing DNA;

(c) contacting the suspension of step (b) with a lysis reagent to form a lysate comprising DNA and non-DNA biological components released from the biological material; and

(d) physically separating the DNA from the non-DNA biological components in the lysate of step (c) to yield isolated DNA.

2. A method for isolating DNA from a biological sample comprising biological material comprising DNA comprising the following sequential steps:

(a) contacting the biological material comprising DNA with a hypertonic, high salt reagent so as to form a suspension of the biological material comprising DN;

(b) contacting the suspension of step (b) with a lysis reagent to form a lysate comprising DNA and non-DNA biological components released from the biological material; and

(c) physically separating the DNA from the non-DNA biological components in the lysate of step (c) to yield isolated DNA.

3. The method of claim 1 or 2, wherein the biological sample is selected from the group consisting of plant tissue, animal tissue, cultured plant cells, cultured animal cells, blood cells, and body fluids.

4. The method of claim 1 or 2, wherein the biological sample is a virus.

5. The method of claim 1 or 2, wherein the biological sample is a bone marrow sample.

6. The method of claim 1 or 2, wherein the biological sample is whole blood.

7. The method of claim 1 or 2, where the non-DNA biological component is selected from the group consisting of proteins, lipids, RNA, and carbohydrates.

8. The method of claim 1 or 2, wherein the hypertonic, high-salt reagent is Puregene® Protein Precipitation Solution (Gentra Systems, Inc., Minneapolis, MN).

9. The method of claim 1 or 2, wherein the hypertonic, high-salt reagent comprises salt in an amount effective to precipitate proteins out of the lysate.

10. The method of claim 9, wherein the salt is selected from the group consisting of soluble sodium, ammonium, or potassium salts.

11. The method of claim 9, wherein the concentration of the salt is greater than about 1 M.

12. The method of claim 9, wherein the concentration of the salt is greater than about 2 M.

13. The method of claim 1 or 2, wherein the lysis reagent comprises a detergent.

14. The method of claim 1 or 2, wherein the lysis reagent comprises an anionic detergent.

15. The method of claim 14, wherein the anionic detergent is chosen from the group consisting of sodium, potassium, and lithium salts of dodecyl sulfate.

16. The method of claim 14, wherein the concentration of the anionic detergent is greater than about 0.1% w/v.

17. The method of claim 1 or 2, wherein the lysis reagent further contains an RNase solution.

18. The method of claim 1 or 2, wherein the lysis reagent is Puregene® Cell Lysis Solution (Gentra Systems, Inc., Minneapolis).

19. The method of claim 1 or 2, wherein the step of physically separating the DNA from the lysate further comprises physically precipitating non-DNA biological components from the lysate without the use of any additional reagents, to yield a non-DNA precipitate, and a solution containing DNA.

20. The method of claim 19, wherein the step of physically separating the DNA from the lysate further comprises centrifuging the lysate.

21. The method of claim 19, further comprising contacting said solution containing DNA with an alcohol to yield a precipitate comprising isolated DNA.

22. The method of claim 21 further comprising contacting the isolated DNA with a wash solution.

23. The method of claim 21, wherein the isolated DNA is treated with a hydration reagent.

24. A method for isolating DNA from a biological sample comprising cells comprising the following sequential steps:

(a) separating the cells comprising DNA from the remainder of the biological sample;

(b) contacting the separated cells comprising DNA of step (a) with a hypertonic, high salt reagent so as to form a suspension of said biological cells;

(c) contacting the suspension of step (b) with a lysis reagent to form a lysate comprising DNA and non-DNA biological components of the biological material; and

(d) physically separating the DNA from the non-DNA biological components of the lysate of step (c) to yield isolated DNA.

25. The method of claim 24, wherein the biological sample is selected from the group consisting of plant tissue, animal tissue, cultured plant cells, cultured animal cells, blood cells, and body fluids.

26. The method of claim 24, wherein the biological sample is a bone marrow sample.

27. The method of claim 24, wherein the biological sample is whole blood.

28. The method of claim 24, where the non-DNA biological component is selected from the group consisting of proteins, lipids, RNA, and carbohydrates.

29. The method of claim 24, wherein the hypertonic, high-salt reagent is Puregene® Protein Precipitation Solution (Gentra Systems, Inc., Minneapolis, MN).

30. The method of claim 24, wherein the hypertonic, high-salt reagent comprises salt in an amount effective to precipitate proteins out of the lysate.

31. The method of claim 30, wherein the salt is selected from the group consisting of soluble sodium, ammonium, or potassium salts.

32. The method of claim 30, wherein the concentration of the salt is greater than about 1 M.

33. The method of claim 30, wherein the concentration of the salt is greater than about 2 M.

34. The method of claim 24, wherein the lysis reagent comprises a detergent.

35. The method of claim 24, wherein the lysis reagent comprises an anionic detergent.

36. The method of claim 35, wherein the anionic detergent is chosen from the group consisting of sodium, potassium, and lithium salts of dodecyl sulfate.

37. The method of claim 35, wherein the concentration of the anionic detergent is greater than about 0.1% w/v.

38. The method of claim 24, wherein the lysis reagent further contains an RNase solution.

39. The method of claim 24, wherein the lysis reagent is Puregene® Cell Lysis Solution (Gentra Systems, Inc., Minneapolis).

40. The method of claim 24, wherein the step of physically separating the DNA from the lysate further comprises physically precipitating non-DNA biological components from the lysate without the use of any additional reagents, to yield a non-DNA precipitate, and a solution containing DNA.

41. The method of claim 40, wherein the step of physically separating the DNA from the lysate further comprises centrifuging the lysate.

42. The method of claim 40, further comprising contacting said solution containing DNA with an alcohol to yield a precipitate comprising isolated DNA.

43. The method of claim 42 further comprising contacting the isolated DNA with a wash solution.

44. The method of claim 42, wherein the isolated DNA is treated with a hydration reagent.

45. A method for isolating DNA from a whole blood sample comprising red blood cells and white blood cells comprising the following sequential steps:

(a) contacting the biological sample with a red blood lysis reagent to lyse the red blood cells;

(b) separating the white blood cells from the lysed red blood cells;

(c) contacting the white blood cells with a hypertonic, high-salt reagent to suspend the white blood cells in a solution of said hypertonic, high-salt reagent;

(d) subsequently contacting the white blood cells of step (c) with a lysis reagent to form a lysate containing DNA and non-DNA cellular material; and

(e) physically separating the DNA from non-DNA cellular material of the lysate to yield isolated DNA.

46. The method of claim 45, wherein the biological sample is selected from the group consisting of blood cells and body fluids.

47. The method of claim 45, wherein the biological sample is a bone marrow sample.

48. The method of claim 45, wherein the biological sample is whole blood.

49. The method of claim 45, where the non-DNA biological component is selected from the group consisting of proteins, lipids, RNA, and carbohydrates.

50. The method of claim 45, wherein the hypertonic, high-salt reagent is Puregene® Protein Precipitation Solution (Gentra Systems, Inc., Minneapolis, MN).

51. The method of claim 45, wherein the hypertonic, high-salt reagent comprises salt in an amount effective to precipitate proteins out of the lysate.

52. The method of claim 51, wherein the salt is selected from the group consisting of soluble sodium, ammonium, or potassium salts.

53. The method of claim 51, wherein the concentration of the salt is greater than about 1 M.

54. The method of claim 51, wherein the concentration of the salt is greater than about 2 M.

55. The method of claim 45, wherein the lysis reagent comprises a detergent.

56. The method of claim 45, wherein the lysis reagent comprises an anionic detergent.

57. The method of claim 56, wherein the anionic detergent is chosen from the group consisting of sodium, potassium, and lithium salts of dodecyl sulfate.

58. The method of claim 56, wherein the concentration of the anionic detergent is greater than about 0.1% w/v.

59. The method of claim 45, wherein the lysis reagent further contains an RNase solution.

60. The method of claim 45, wherein the lysis reagent is Puregene® Cell Lysis Solution (Gentra Systems, Inc., Minneapolis).

61. The method of claim 45, wherein the step of physically separating the DNA from the lysate further comprises physically precipitating non-DNA biological components from the lysate without the use of any additional reagents, to yield a non-DNA precipitate, and a solution containing DNA.

62. The method of claim 61, wherein the step of physically separating the DNA from the lysate further comprises centrifuging the lysate.

63. The method of claim 61, further comprising contacting said solution containing DNA with an alcohol to yield a precipitate comprising isolated DNA.

64. The method of claim 63 further comprising contacting the isolated DNA with a wash solution.

65. The method of claim 63, wherein the isolated DNA is treated with a hydration reagent.